

Work Order ID 133783

Wednesday, June 17, 2015 2:51:44 PM

133783

U/R

CP 15/6/18

Page 1

Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: U/R - URF15-560 Stop ***NS2***
 Item Name: Replacement Skidtube with Wearpads, Fits LH or RH
 Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MUS Date: JUN 17 2015 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3887-041	D								
IIN-D119-646	C								

100

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D119-646-041 CHG003

N/A *[Signature]*

110

0.00

110

Skidtubes

Memo

0.00

Skidtubes

1- inspect Mat'L D2500-1-190 for damage
 2-Cut tube to length as per dwg D3887 (154.8")
 3- Ensure squareness of ends and scribe batch#

[Signature] 15-6-18

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: U/R - URF15-560 Stop ***NS2***
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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Chemical Conversion Coat per QSI005 4.1	0.00							
120									
HandFinish	Memo	0.00							
Hand Finishing									
121	QC7-Inspect Chemical Conversion Coat	0.00							
121									
QC	Memo	0.00							
Quality Control									
122	QC5- Inspect part completeness to step on W/O	0.00							
122									
QC	Memo	0.00							
Quality Control									

DAS
18
9-09DAS
18
9-09

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Item ID: D119-646-041 Accept

Revision ID: U/R - URF15-560

Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015 Start Qty: 1.00 *1*

Required Date: 6/17/2015 Req'd Qty: 1.00 *1*

Reference:

N900040100Setup Start ***NS1***Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Skidtubes

Skidtubes

Memo

0.00

1- Install drill Jig DT9477 drill X-bolt spacer pilot holes using 3/16" drill first side only.

2- 2nd side, locating from first saddle holes use DT9861 A/B to drill 2nd side fwd saddle holes.

3- 2nd side locating from fwd saddle drill remaining crossbolt spacer holes using DT9477

4- Open crossbolt spacer holes to finished size as per dwg D3887 (section D-D and E-E) ***DO NOT OPEN FWD Saddles Holes***

5- Deburr, blow out chips from inside of tube.

6- Bond web in place as per Dwg D3887 & QSI 015.

A/RSikaflex-291 16-2-12Sikaflex expire date: 132392

Start: _____ Time: _____

Finish: _____ Time: _____

***** (Adhere for 12 hours) *****

DOC

15-6-23

15-6-23

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Item ID: D119-646-041

Accept

N900040100Setup Start ***NS1***

Revision ID: U/R - URF15-560

Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Stop ***NS2***Start Date: 6/17/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 6/17/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

0.00

140

0.00

Skidtubes

Memo

1- Bend FWD end of tube using bender 1 and bend prog. D3887.***Must use bending aid.DT9544, ensure proper positioning***

2- Cut FWD end of tube as per dwg D3887.***Verify measurment***

3- Buff out marks left from bending

4- Drill FWD cap holes using DT8215. Open FWD & AFT cap holes to 0.208"

5- Open FWD saddle holes to finished size as per dwg D3887

6- Drill FWD x-bolt spacer holes using DT9816 and open to finished size.(verify measurement)

7- Drill Tow ring hole, using DT10047 locate from FWD saddle hole. (verify neasurement). Open to finished size.

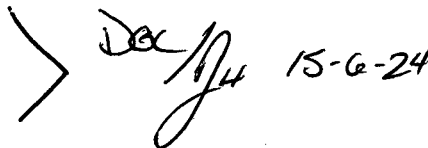
8- Drill 1.87" and 3.74 holes using DT10045 A&B locate from FWD saddle hole. (verify measurement) as per dwg.

9- C'sink FWD cap hole as per detail "C"

10- Drill holes for wearpads using DT8931, open to 0.297".

11- Countersink crossbolt spacer holes, and prepare tube for welding, deburr.

12- Deburr and blow out chips from inside of tube.



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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Memo

0.00

Quality Control

DAS
18
9-891 0 15-06-25

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
160									
Skidtubes	Memo	0.00							
Skidtubes	NOTE:TACK IN 2 MOST FWD X-BOLT SPACERS AND TEST FIT FWD GROUND HANDELING FIXTURE,IF FIXTURE FITS WELL THEN PROCEED. FIXTURE DT10091.								
	1-Insert crossbolt spacers. Weld as per QSI 004 and Dwg D3887. Remember to back drill each hole before welding the other side. Use aluminum rod A/RAluminum Rod <i>mk31362</i>								
	2-Grind cross bolt welds flush as per Dwg D3887. Ensure no pin hole. <i>15-6-29 Jk</i>								
	3-Counterbore 5/16" x 0.750" deep as per Dwg D3887. <i>JCL 15-6-30</i>								
	4- Deburr & Scribe batch # on Aft end of tube.								
170	QC5- Inspect part completeness to step on W/O	0.00							
170									
QC	Memo	0.00							
Quality Control	TEST FIT USING FIXTURE DT10091.								

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JUL 02 2015

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 Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC10- Inspect visual per QSI004- ground welds	0.00				1	15 15/0		DAS 38 9-89
180									
QC	Memo	0.00							
Quality Control									
									JUL 02 2015
190	Pressure Wash per QSI005 4.3	0.00				1	15 15-7-6		
190									
HandFinish	Memo	0.00							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				1	15-7-14		DAS 34 9-89
200									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 10:10 OVEN TEMPERATURE: 320 FINISH TIME: 10:40								

★
SEE
Attached

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: U/R - URF15-560 Stop ***NS2***
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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC3- Inspect Part Finish	0.00							
210									
QC	Memo	0.00				1x	q	lll	15/07/21
Quality Control									
220		0.00							
220									
HandFinish	Memo	0.00				1x	q	lll	15/07/21
Hand Finishing	1-Install inserts as per Dwg D3887.								
230	QC5- Inspect part completeness to step on W/O	0.00							
230									
QC	Memo	0.00				1		RB	15-07-21
Quality Control									

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15
9:59

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240		0.00							
240 HandFinish		0.00							
Hand Finishing	★ See Attached Memo 1-Install wearpads, gaskets as per Dwg D3887. Put sikaflex in insert before installing bolts and washers A/R Sikaflex-240/-291 <u>M132705</u> Sikaflex expire date: <u>16102</u> 2-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: <u>1131344</u> RTU598 <u>1132017</u> exp <u>15/07</u> 3 -Inspect for foreign objects as per QSI 024 4 -Install Aft Cap and seal with Sikaflex. Clean excess adhesive. A/R Sikaflex-240/-291 <u>M132705</u> Sikaflex expire date: <u>16101</u>								
245	QC5- Inspect part completeness to step on W/O	0.00							
245 QC		0.00							
Quality Control	Memo								

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Revision ID: U/R - URF15-560 Stop ***NS2***
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Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Wing Walk as per dwg QSI005 4.4 Batch	11132599							
250									
HandFinish	Memo	0.00							
Hand Finishing									
251	QC3- Inspect Part Finish	0.00							
251									
QC	Memo	0.00							
Quality Control									
260	Identify as per dwg & Stock Location:	0.00							
260									
Packaging	Memo	0.00							
Packaging									

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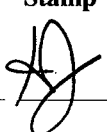
133783

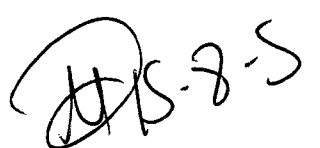
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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: U/R - URF15-560 Stop ***NS2***
Item Name: Replacement Skidtube with Wearpads, Fits LH or RH
Start Date: 6/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	QC21- Final Inspection - Work Order Release	0.00							
270									
QC	Memo	0.00							
Quality Control									

15/8/6 

 S-8-S.

Picklist Print

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Page 1

Work Order ID: 133783

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Parent Item: D119-646-041

D119-646-041

Parent Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP RevA: New issue DD verified by:EC IPP rev B
10.02.22 per PAR 09-043 EC verified by:DD IPP REVC 12.11.05
(DEOD3887-B-1)(ecn 12-675) DD verf:JLM IPP REV:D 13.03.20 per
chg003 ECN13-534 DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-190 *D2500-1-190* Ext'n -1' Beam Tube 4"		Manufactured	No			110	Each	46.0000	1	1			
					<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>			
					LG002	46			**				
					120085	46							
D2579 *D2579* Crossbolt Spacer		Manufactured	No			140	Each	173.0000	2	2			
					<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>			
					LG001	173			**				
					113785	24							
					123997	149							
D2855-3 *D2855-3* Cap		Manufactured	No			240	Each	38.0000	2	2			
					<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>			
					FP001	38			**				
					111898	10							
					127596	28							

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Parent Item: D119-646-041

D119-646-041

Parent Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1611-005

Purchased

No

240

Each

282.0000

16

16

NAS1611-005

O-RING

**

ll 13/07/21

Location

Loc Qty

Loc Code

FP001

282

m129198

75

m129384

207

D3492-5

Manufactured

No

240

Each

39.0000

16

16

D3492-5

Plug

**

ll 13/07/22

Location

Loc Qty

Loc Code

FP001

39

120153

39

B133098

B133909

538.0000

2

2

D3672-1

Manufactured

No

240

Each

D3672-1

Washer, Phenolic

**

ll 13/07/21

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

170

113581

170

ST055

358

120116

3

127322

355

x2

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Parent Item: D119-646-041

D119-646-041

Parent Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 1.00

Required Qty: 1.00

D3681-1

Manufactured No

160

Each

64.0000

8

8

D3681-1

Spacer

BE 1306-25

Location

Loc Qty

Loc Code

LG

60

133174

60

8

LG001

4

132711

4

D3847-1

Manufactured No

240

Each

12.0000

5

5

D3847-1

Wearpad

41 1310712

Location

Loc Qty

Loc Code

FP001

12

112444

10

113736

2

B133153

x 5

D3847-11

Manufactured No

240

Each

14.0000

1

1

D3847-11

Wearpad

all 10/107/21

Location

Loc Qty

Loc Code

FP001

14

112558

8

113833

6

x 1

D3885-1

Manufactured No

140

Each

3.0000

1

1

D3885-1

Standard Web

Location

Loc Qty

Loc Code

LG002

3

129069

3

1

DGC 15-6-23

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D119-646-041

Parent Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 1.00

Required Qty: 1.00

D3903-1

Manufactured No

160

Each

78.0000

12

12

D3903-1

Spacer

BE 15-06-25

Location

Loc Qty

Loc Code

LG

23

132881

23

LG001

55

124312

3

133139

52

12

ALS4-1032-130

AELS4-1032-130 Purchased

No

220

Each

2,564.000

30

30

AI S4-1032-130

Rivnut

all 15/07/21

Location

Loc Qty

Loc Code

st549

2564

M132317

2564

X30

AN3C5A

Purchased

No

240

Each

296.0000

32

32

AN3C5A

Bolt

all 15/07/21

Location

Loc Qty

Loc Code

FG

5

122800

5

FP001

6

M131420

6

ST

56

121708

56

ST338a

220

X 26

M130851

16

M131803

204

ST350

9

M131320

9

SEE Attached

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Parent Item: D119-646-041

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Parent Item Name: Replacement Skidtube with Wearpads, Fits LH or RH

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

Each

5,840.000

32

NAS1149C0332R

WASHER

Location

Loc Qty

Loc Code

FP001

2140

m130325

2140

GA

318

m131618

318

ST271

3382

m132262

3382

Each

87.0000

2

x32

MS24694-C52

Purchased

No

MS24694-C52

SCREW

Location

Loc Qty

Loc Code

FP001

41

m127059

41

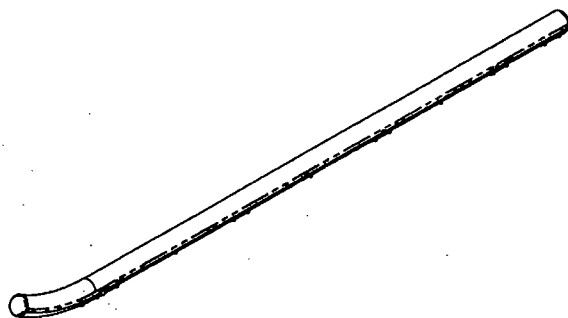
ST287

46

124308

46

x2



D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD (SHOWN)
D3887-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE (SIMILAR)
D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)

ITEM	QTY -041	QTY -043	QTY -045	P/N	DESCRIPTION
1	X			D3887-041	STD SKIDTUBE ASSY WITH WEARPAD
2		X		D3887-043	STD SKIDTUBE ASSY WITH WEARPLATE
3			X	D3887-045	STD SKIDTUBE ASSY WITH TRAINING WEARPLATE
10	2	2	2	D2579	CROSS BOLT SPACER
11	2	2	2	D2855-3	CAP
12	16	16		D3492-045	PLUG ASSY
13	2	2	2	D3872-1	PHENOLIC WASHER
14	8	8	8	D3881-1	SPACER
17	5	5		D3847-1	WEARPAD
18	1	1		D3847-11	AFT WEARPAD
19		1		D3847-043	FWD WEARPLATE ASSY
20		1		D3847-045	CENTER WEARPLATE ASSY
21		1		D3847-047	AFT WEARPLATE ASSY
22			1	D3848-041	FWD TRAINING WEARPLATE ASSY
23			1	D3848-043	AFT WEARPLATE ASSY
24	1	1	1	D3885-1	STANDARD WEB
25	1	1		D3887-11	STANDARD SKIDTUBE
26			1	D3887-13	STANDARD SKIDTUBE
27	12	12	12	D3903-1	SPACER
28			16	D3904-1	WASHER
41	30	30		ALS4-1032-130	INSERT
42	32	32	2	AN3C5A	BOLT
43			8	AN3C48A	BOLT
44	32	32		NAS1149C0332R	WASHER (OR AN980C10L)
45			8	MS21043-3	NUT
46	2	2	2	MS24694-C52	SCREW

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 133783 ML3
 1506-17

RELEASED
 2016 NOV 24
 ECN 14-648
UNDER REVIEW
 15.04.30 URF15-560 AP

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3885-1 WEB
 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
 BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3887-041 = 32.0 lbs
 D3887-043 = 37.0 lbs
 D3887-045 = 38.1 lbs
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
 THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 8.5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020" DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) INSERT D3885-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241-291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP
- 11) INSERT D3492-045 PLUG ASSY INTO Ø0.197 HOLES (BOTH SIDES OF TUBE)
- 12) USE DART DRILL TEMPLATE DT8931 TO LOCATE AND DRILL Ø0.287 HOLES FOR WEARPLATE INSERTS. INSTALL AELS-1032-130 INTO D3887-11 ONLY. INSTALL AN3C5A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241-291.

D	REVISED BEND TOLERANCES FOR MANUFACTURABILITY, 135.07 WAS 134.04 (ZN D5-8), ADD 5.07 (ZN C2-8), ADD 116.8 (ZN D5-8), DELETE GASKETS (BOM, SH 2)	DB	13.09.20
C	(SHT1, P/L, ZN C2-2, C2-2 C4-2) ITEM 13, QTY 2 WAS 4, ITEM 42, QTY 32 WAS 34, ITEM 44, QTY 30 WAS 32, ADD ITEM 46, MS24694-C52 WAS AN3C5A, 2 PLCS (ZN C1-5, C1-6, B4-0.00 201 CSK Ø0.385 X 100 WAS Ø0.514 THRU, ADDED DETAIL F (ZN C8-5, C8-6, B8-7), ADD ITEM 10, D2579 CROSS BOLT SPACER (ZN D4-1, A8-7)	DB	13.02.19
B	ALS4-1032-130 WAS AELS-1032-130 (ZN C4-1, C5-7 C3-7); ADD DT8931 (ZN A8-1); ADD 134.04 (ZN C4-8); D2855-3 WAS D2575 (ZN D4-1, C7-2, C2-2, C7-3, C2-3, C7-4, C2-4); AN3C5A WAS AN3C4A (ZN C8-2, C2-2, C8-3, C2-3, C8-4, C2-4); Ø0.315 WAS Ø0.328 (ZN C4-5, C4-5, C2-7 & B3-7) REVISED NOTE N (ZN B3-7)	RF	09.06.30
A	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	DB	KENT, WA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3887	SHEET 1 OF 8
APPROVED		TITLE	SCALE
DE APPR.		A119 STD SKIDTUBE ASSY	NTS
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AN3C5A BOLT
D3872-1 PHENOLIC WASHER
NAS1149C0332R WASHER
(1 PER SIDE)

SEAL WITH
SIKAFLEX-241/291

D2855-3 CAP

D3847-11
WEARPAD

BLACK ANTI-SKID TO 0.5
ABOVE LOCATION RIDGE
TYP

Ø0.197
8 PL PER SIDE
REF

AN3C5A BOLT
NAS1149C0332R WASHER
24 PL

PLUG UNUSED INSERTS WITH
AN3C5A BOLT
NAS1149C0332R WASHER
6 PL

D3847-1
WEARPAD
5 PL

D2855-3 CAP

SEAL WITH
SIKAFLEX-241/291

MS24694-C52 SCREW
(1 PER SIDE)

D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD
(MAKE FROM D3887-11)

UNDER REVIEW

15.04.30 URF15-560 AP

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AN3C5A BOLT
D3672-1 PHENOLIC WASHER
NAS1149C0332R WASHER
(1 PER SIDE)

SEAL WITH
SIKAFLEX-241/291

D2855-3 CAP

D3847-11
WEARPAD

D3847-047
AFT WEARPLATE ASSY

AN3C5A BOLT
NAS1149C0332R WASHER
30 PL

BLACK ANTI-SKID TO 0.6
ABOVE LOCATION RIDGE
TYP

11
Ø0.187
8 PL PER SIDE
REF

D3847-045
CENTER WEARPLATE ASSY

D3847-043
FWD WEARPLATE ASSY

D3847-1
WEARPAD
5 PL

D2855-3 CAP

SEAL WITH
SIKAFLEX-241/291

MS24694-C52 SCREW
(1 PER SIDE)

D3887-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE
(MAKE FROM D3887-11)

UNDER REVIEW

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AN3CSA BOLT
D3672-1 PHENOLIC WASHER
NAS1148C0332R WASHER
(1 PER SIDE)

SEAL WITH
SIKAFLEX-241/291

D2855-3 CAP

AN3C46A BOLT
D3904-1 WASHER, 2 PL
MS21043-3 NUT
8 PL

D3848-043
AFT TRAINING WEARPLATE ASSY

BLACK ANTI-SKID TO 0.5
ABOVE LOCATION RIDGE
TYP

1.5
1.5
1.5

2.00 DISTANCE TO D3885-1 WEB

1.5
1.5

1.5 D2855-3 CAP

SEAL WITH
SIKAFLEX-241/291

MS24894-C52 SCREW
(1 PER SIDE)

D3848-041
FWD TRAINING WEARPLATE ASSY

UNDER REVIEW

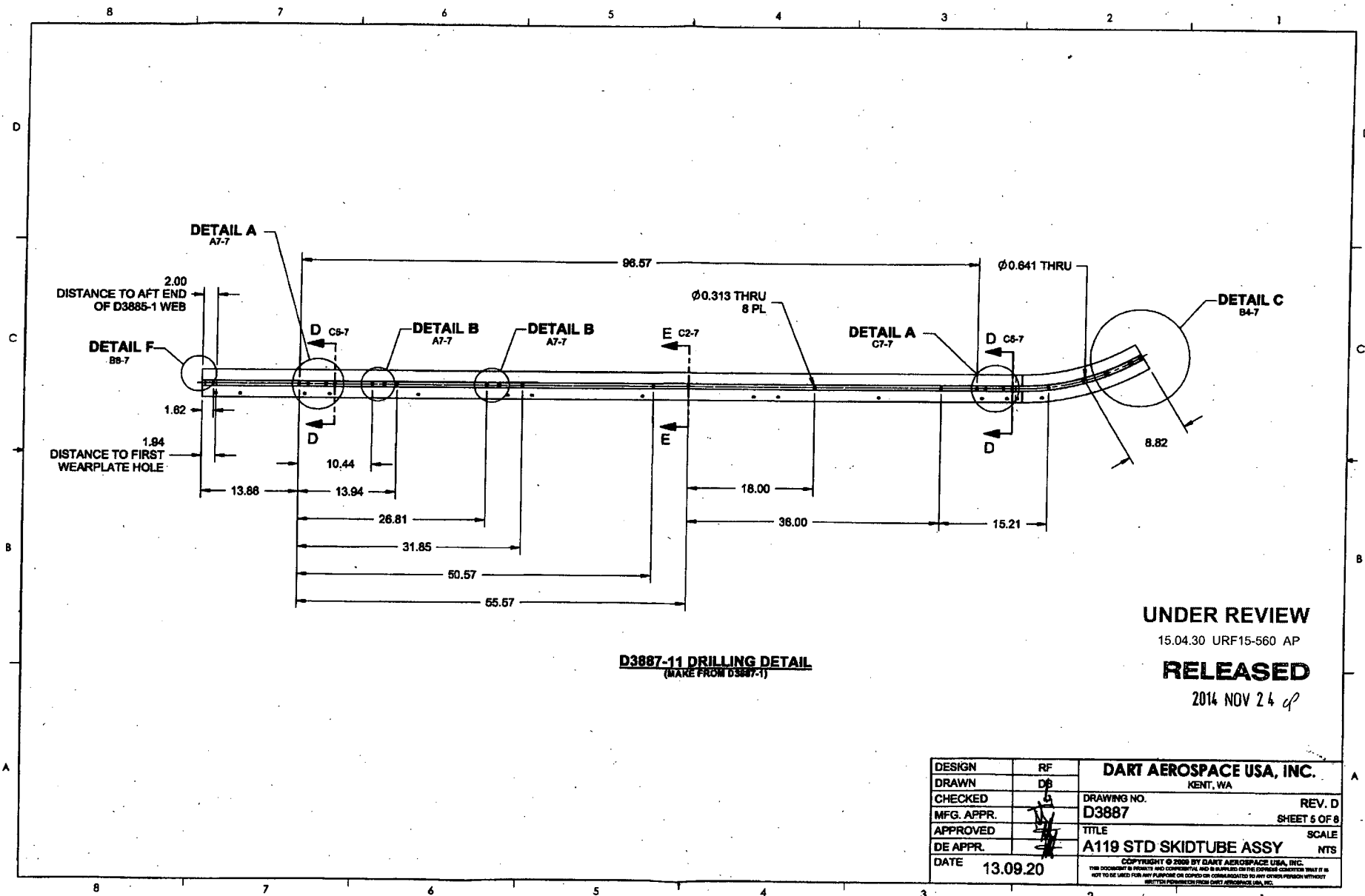
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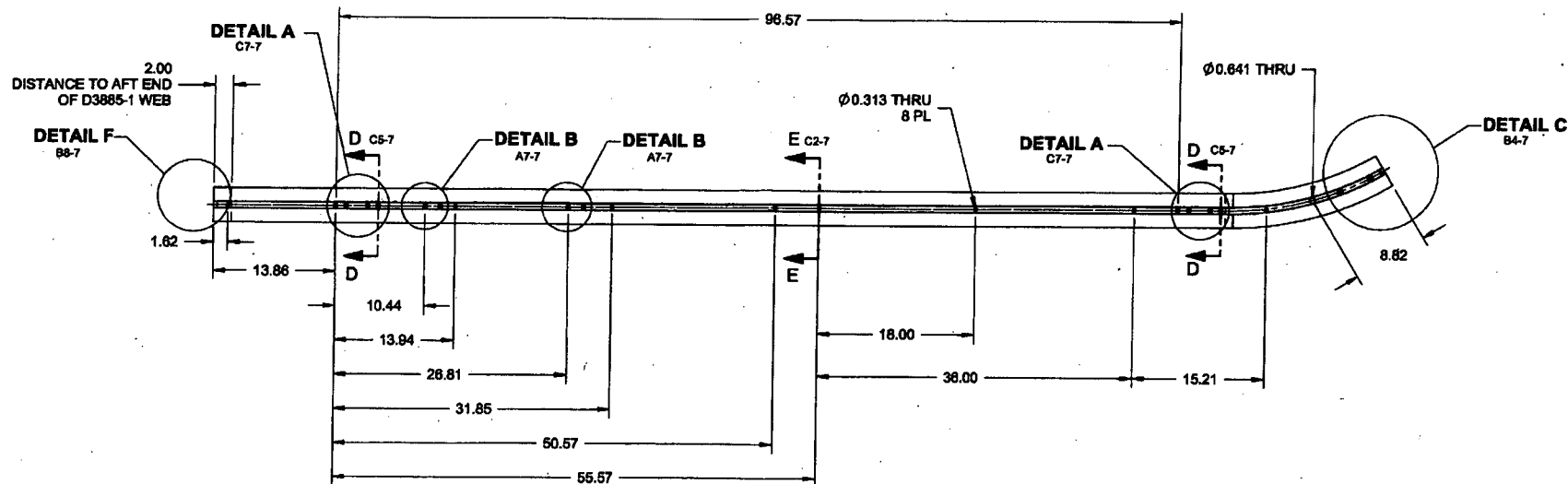
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2014 NOV 24 *dp*

D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE
(MAKE FROM D3387-13)

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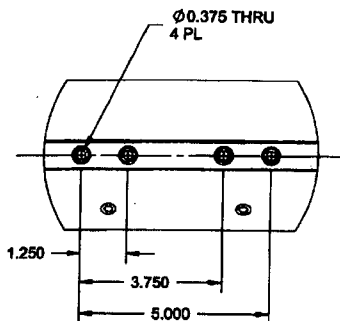
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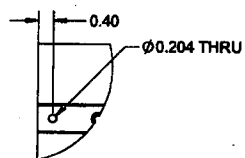
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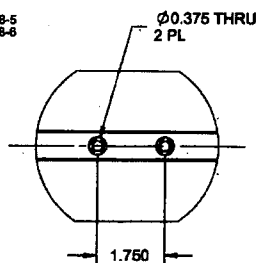
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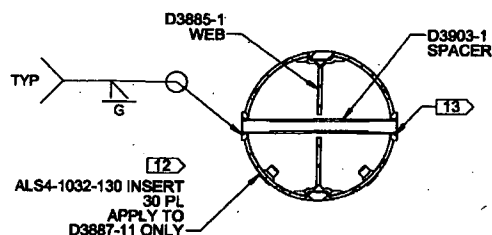
DETAIL A
SCALE 4X
D7-5
C3-5
D7-6
C3-6



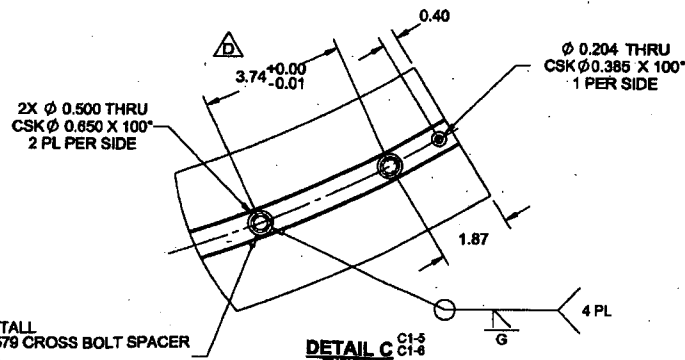
DETAIL F
SCALE 4X
C8-5
C8-6



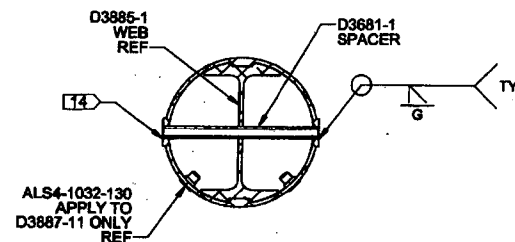
DETAIL B
SCALE 4X
C8-5
C5-5
C8-6
C5-6



SECTION D-D
SCALE 4X
(FOR 12 X Ø0.375 HOLES PER SKIDTUBE)
C7-5
C3-5
C7-6
C2-6



DETAIL C
TYPICAL
SCALE 4X
C1-5
C1-6



SECTION E-E
SCALE 4X
(FOR 8 X Ø0.313 HOLES PER SKIDTUBE)
C4-5
C4-6

NOTES:

- 13) AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
i) CHAMFER HOLES Ø0.475 x 45°
ii) INSERT D3903-1 SPACER
iii) WELD INTO PLACE AND GRIND FLUSH
iv) CBORE TO 0.313 x 0.75 DEEP
v) DEBURR HOLES

- 14) AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.313 HOLES ONLY:
vi) CHAMFER HOLES Ø0.354 x 45° OR 0.050 DEEP x 45° (BOTH SIDES)
vii) INSERT D3681-1 SPACER
viii) WELD INTO PLACE AND GRIND FLUSH
ix) DEBURR HOLES

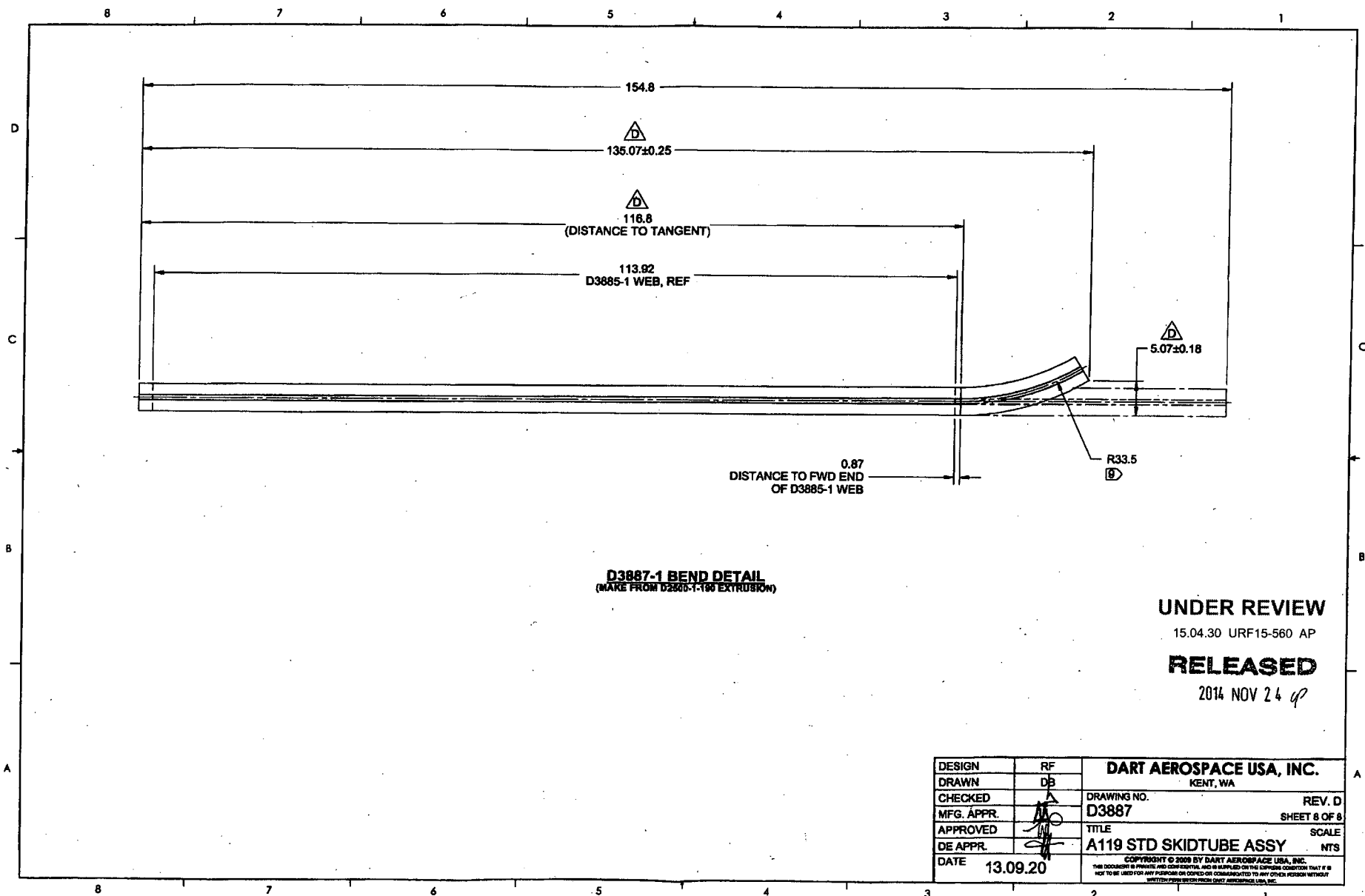
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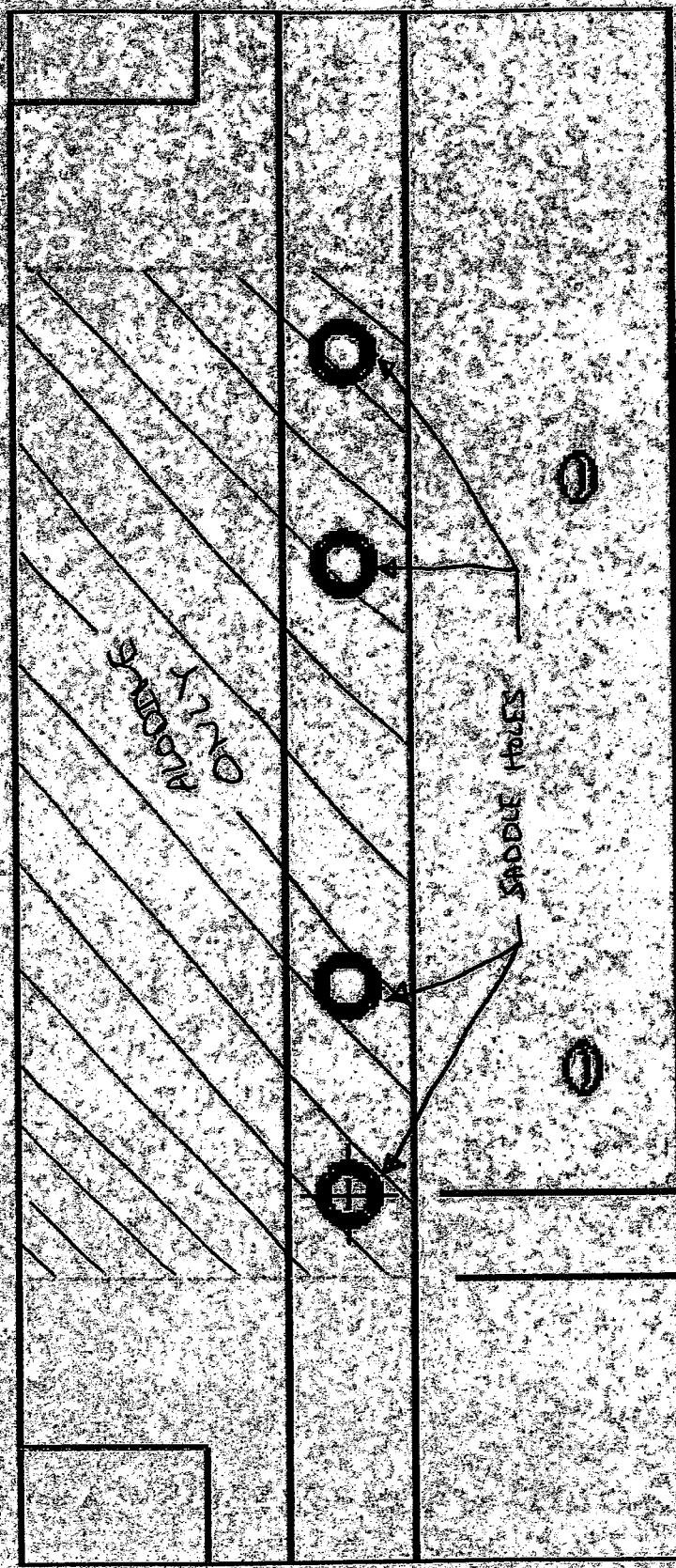
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6.00

10 2 3 0 1 5 1 8



0.50

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____

Date: _____

Work Order update only ☐

Work Order: <u>133783</u> Part No. <u>D119-646-041</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☒ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date: <u>15/6/18</u>		Step #: <u>200</u>		QTY Effective: <u>1</u>		MRB (QSI042) Approval <u>DAS</u> <u>12</u> <u>15/6/18</u> <u>9-89</u>					
Description Work Order Deviation				Disposition							
No powder coat in saddle locations in accordance with attached dwg. Aludine only.				Acceptable.							
								Completed By			
								Lead hand / Supervisor Approval Verification			
				QC / QA Coordinator Approval							

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☒	Offset/Set-up	☐	Centre Not Concentric	☒	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____

Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☒ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval DAS 12 15/6/18 9-89	
Description Work Order Deviation				Disposition			
Plug unused incomplete holes with AN3C4A bolts qty 6.				Acceptable. AN3C-4A b/n <u>M1132551</u>			
				Completed By 853 15-7-14			
				Lead hand / Supervisor Approval Verification			
				QC / QA Coordinator Approval			

Root Cause			FAULT CATEGORY		
Environment	☐	No Re-verification	Pressure/Forced	☐	Temperature/Cure
Design	☐	Operator	Bending	☐	Set-up
Doc/Data	☒	Offset/Setup	Centre Not Concentric	☒	BOM/Route
Equip/Tooling	☐	Supplier	Cracks	☐	Broken/Damage/Defect
Handling/Pre	☐	Training	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified
Material	☐	Use for Testing	Cuffs	☐	Contamination
Internal Transport	☐	Poor Information	Crushing	☐	Countersink
Tribal Knowledge	☐	Rushing	Heat Treat	☐	Cut Too Short
LOA	☐	Product Improvement	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear
Substation	☐	Process Improvement	Marks/Chatter	☐	Drill Holes
Past Expiry Date	☐	Manufacturing Process			
Misidentified	☐	Past Due	OTHER : _____		